

Rehabilitation program in dialysis patients – experience & update 2017

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Start of dialysis in vulnerable elderly patients may be associated with a rapid decline in functional performance. Functional decline has been known to be related to nutritional imbalance, muscle catabolism, hormone abnormality, low levels of physical activity and physical functioning with alteration in cardiovascular systems and decrease in muscle force and power. It may increase cardiovascular complications and overall mortality. Muscle wasting is common among patients with end stage of renal disease (ESRD). Higher prevalence of sarcopenia was found to be higher in elderly chronic kidney diseases from one Korean cohort. Muscle mass reduction and decreased strength in ESRD can be considered as one of secondary sarcopenia. It has been reported that higher muscle quality as a significant independent predictor for better survival in hemodialysis patients. Therefore, maintaining muscle mass and strength of dialysis patients is an important strategy to manage these population properly. Physical exercise has been shown to have benefits on the potential improvements on physical function, cardiovascular outcomes, dialysis efficacy, health-related quality of life, psychological improvement, and bone mass density. However, general exercise guideline may not be applied effectively to most patients because of poor compliance and inadequate physical condition. Therefore, it is necessary to make a proper way of doing exercise appropriate to their physical function and the level of disease severity. This is a rehabilitation exercise and it is a rehabilitation program to provide it appropriately to the patients. The rehabilitation programs for dialysis patients can be classified into various types of interventions according to the supervision or not (supervised vs. self directed), intervention place (institution based/home based) and specific modalities. In this review, the evidences and experiences regarding the effects of various exercise interventions for ESRD patients will be introduced and how the practical rehabilitation exercise program can be applied in the field will be discussed.